Los Alamos Dynamics Summer School 2009 Lecture Series

The tutorials and lectures are open to all LANL staff and students. However, we have limited seating for these classes and seating in general must be reserved two weeks in advance (if you are interested in any of the lectures and/or tutorials in the first two weeks please let me [eunkefer@lanl.gov] know asap). If we have significant interest beyond our current seating capacity, we will attempt to have a second offering of the tutorial or lecture subject to the availability of the instructor/lecturer. Please note that staff members can use the tutorials and guest lectures to meet the continuing education credit requirements needed to maintain a professional engineer's license. We will issue certificates of attendance to staff for the purpose of documenting their attendance in order to verify that they have met the PE continuing education requirements. All tutorials and lectures will be held in Suite 100 (IMMS) in the Research Park Building.

To reserve a seat at any of the lectures or tutorials, please contact Kathie Womack (eunkefer@lanl.gov) with your name and which event you want to attend (including the date).

Week of June 8th

Tutorials:

Introduction to Instrumentation and Signal Processing, Gyuhae Park June 10 & 12, 8-9:30AM The Engineering Institute Los Alamos National Laboratory

Introduction to Python, DJ Lusher & Matt Bement June 12 (1- 2:30PM) & June 15 (3:30- 5:00PM) Advanced Engineering Analysis Lagrangian Codes Los Alamos National Laboratory

Guest lecture:

Modeling and Testing of a Shell for the 60 Telsa Magnet, Curtt Ammerman June 10, 1:30-3:00PM
Applied Engineering Technology
Los Alamos National Laboratory

Week of June 15th

Tutorials:

An Introduction to Structural Dynamics, *Vibrations Lectures*, Pete Avitabile June 15-19, 8:00-9:30AM
Department of Mechanical Engineering

University of Massachusetts- Lowell

Introduction to Mini-Project and ABAQUS CAE, Pete Avitable & DJ Luscher June 15, 10-11AM
Dept. of Mechanical Engineering, University of Massachusetts-Lowell
Lagrangian Codes, Los Alamos National Laboratory

Getting Started with the ABAQUS Finite Element Code, DJ Luscher June 16, 3:30- 5:00PM Advanced Engineering Analysis Los Alamos National Laboratory

Guest lectures:

Fiber Optic Sensing, Mike Todd June 17, 1:30- 3:30 Department of Structural Engineering University of California- San Diego

Engineering Issues for Orthopedic Surgery, Dr. Michael Meneghini June 18, 3:30- 5:00PM St. Vincent Center for Joint Replacement

Week of June 22nd

Tutorial:

Rigid Body Dynamics Tutorials, Phil Cornwell June 22- 24, 8:00- 10:00AM (The 24th ends at 9:30) Department of Mechanical Engineering University of Massachusetts- Lowell

Guest lectures:

Boeing Aerospace Application, Steven Griffin June 23, 3:30- 5:00PM Boeing Company

High Explosives Radio Telemetry System, Tom Petersen June 25, 3:30- 5:00PM Weapons Test Engineering Group Los Alamos National Laboratory

Week of June 29th

Tutorial:

Introduction to Controls, Matt Bement June 29 & 30, 8:00- 9:30AM Lagrangian Codes Los Alamos National Laboratory

Guest lectures:

Predictive Process Dynamics, Matt Bement June 30, 3:30- 5:00PM Lagrangian Codes Los Alamos National Laboratory

Structural Health Monitoring, Chuck Farrar July 2, 3:30- 5:00PM Engineering Institute
Los Alamos National Laboratory

Week of July 6th

Tutorial:

Computational Structural Dynamics, DJ Luscher July 6-9, 8:00- 9:30AM Analysis and Prediction Group Applied Engineering Technology Los Alamos National Laboratory

Guest lectures:

Extended Regeneration Testing of the Tritium Waste Treatment System, Mark Bibeault July 7, 3:30- 5:00PM Los Alamos National Laboratory

Sports Equipment Dynamics, John Kosmatka July 9, 3:30- 5:00PM Department of Engineering University of California, San Diego

Week of July 13th

Tutorial:

Wave Propagation (Introduction, NDE, Acoustics, Blast and Seismology), Anthony Puckett July 13- 16, Monday- 8-10AM, Tues.- Thurs. 8:00-9:30AM Advanced Engineering Analysis Los Alamos National Laboratory

Guest lectures:

Aerospace Structural Dynamics, Nick Lieven July 14, 3:30- 5:00PM Department of Aerospace Engineering University of Bristol

Air Force's Space Program, Brandon Arritt July 16, 3:30-5:00PM

Space and Remote Sensing Los Alamos National Laboratory

Week of July 20th

Tutorials:

Nonlinear Dynamics, Professor Doug Adams
July 20- 24, Monday 8-10AM, Tues.- Thurs. 8:00-9:30AM
Department of Mechanical Engineering
Purdue University

Model Validation, Francois Hemez July 20, 22 & 27 (20 & 22th: 1:30- 3PM; 27th: 8:00- 9:30AM) Verification Los Alamos National Laboratory

Guest lectures:

Modal Analysis and FE modeling of Engineering Components, Gretchen Ellis July 21, 3:30- 5:00PM
Applied Engineering Technology
Los Alamos National Laboratory

Acoustic Control of Rocket Payload, Kevin Farinholt July 23, 3:30- 5:00PM Engineering Institute Los Alamos National Laboratory

Week of July 27th

Guest lecture:

Satellite Dynamics: Alexis and Forte, Tom Butler July 28 & 30, 3:30- 5:00PM Consultant to Los Alamos National Laboratory

^{*}Additional tutorials and lectures will be added throughout the summer